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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,536	12/07/2000	Yu Suzuki	05905.0114	7233

22852 7590 11/28/2007

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EXAMINER	
PRENDERGAST, ROBERTA D	

ART UNIT	PAPER NUMBER
2628	

MAIL DATE	DELIVERY MODE
11/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/622,536	SUZUKI ET AL.	
	Examiner	Art Unit	
	Roberta Prendergast	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12,15 and 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12, 15 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barrus et al. U.S. Patent No. 6058397 in view of Hon Wai Chun; Ming-Kit Lai, E.; "Intelligent critic system for architectural design", IEEE Transactions on Knowledge and Data Engineering, Volume 9, Issue 4, July-August 1997, pages 625–639, hereinafter Chun et al.

Referring to claim 15, Barrus et al teaches an image generating method for generating an image of a component completed by arranging a plurality of components in a plurality of divided areas in a virtual three-dimensional space, the method comprising: storing, in advance, data on the plurality of areas, data on the plurality of components (Abstract; Figs. 2-5, 20-23 and 26; column 1, lines 5-10; column 2, lines 45-60; column 3, lines 3-12 and 19-52; columns 6-7, lines 66-10; column 7, lines 30-65; column 13, lines 22-53, i.e. a storage database connected to the computer through the network, wherein a virtual reality environment is divided up into locales indicating areas of a virtual reality scene wherein each locale/area includes elements such as a cup, saucer and table, is understood to be the storage means data on the plurality of

areas/locales and data on the plurality of components/elements), a first parameter indicating the characteristics of the plurality of areas and directions in which the plurality of components are to be arranged in each area, and a second parameter indicating at least types and sizes of the plurality of components and environments where the plurality of components are to be arranged (Figs. 13-16; column 13, lines 22-53; column 14, lines 25-63; column 15, lines 30-65, i.e. the Locale Info table containing information about a "locale" defined as a single section of a virtual environment, the CompositionList table containing information regarding the components/elements found in the locale and the PartsList table containing information regarding the position of the parts in the locale are understood the be the first parameter indicating characteristics of the plurality of areas and directions in which the plurality of components/elements are to be arranged in each area, the names of the components/elements indicate the types of components and the sizes are given in the primitive table and further the size of the component is required for scaling the components to fit within the locale); selecting, based on the characteristics of the plurality of areas included in the first parameter, one component from among the plurality of components for which the second parameter has been designated (Figs. 13-16; column 13, lines 22-53; column 14, lines 25-63; column 15, lines 30-65, i.e. the creation of the PartsList table indicates that the components have been selected from a plurality of components); arranging, based on the directions in which the plurality of components are to be arranged in each area included in the first parameter, the selected component in any of the areas (Figs. 13-16; column 13, lines 22-53; column 14, lines 25-63; column 15, lines 30-65; columns 15-16, lines 66-39, i.e.

the components are arranged based on position information indicating the position of the components within the locale and using transformation information to move an object/component to a different position within the Locale's coordinate system indicates that the components are arranged based on the direction information included in the first parameter); and generating image data to form the image of the component completed by arranging the selected component in any of the areas (Figs. 2-4 and 20; column 5, lines 19-27; column 6, lines 54-65; column 8, lines 14-39; column 10, lines 35-61; column 17, lines 9-24 and 40-50; column 19, lines 15-66; column 14-47, i.e. the 3-D environment is created and stored in the database and the server obtains information regarding the locales requested by the browser from the tables and prepares generates a final image to be sent to the browser for display) but does not specifically teach selecting, based on the characteristics of the plurality of areas included in the first parameter, one component from among the plurality of components for which the second parameter has been designated.

Chun et al. teaches this limitation (Figs. 1-6; pages 627-628, section 4.2 Object Knowledge Base, 1st-2nd and 4th-5th paragraphs; pages 636-637, section 7-7.6, i.e. characteristics of the plurality of areas, such as a kitchen area or a bedroom area, are used to define which components should be selected for a particular area, since a stove, refrigerator and/or dining room table would be possible components for a kitchen area but would not belong in a bedroom area/locale and thus a first parameter would include information regarding the type of area being generated/modified).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Barrus et al. to include the teachings of Chun et al. because defining where objects should be placed based on floor plan design and interior design principles allows an image generating device to arrange components in the virtual space based on well known user preferences defined in the FPDX and IDX design rules (Chun et al.: page 625, section 1 Introduction; page 636, section 7 The IDX Critic Module and section 7.2 Proximity of Objects).

Referring to claim 12, the rationale for claim 15 is incorporated herein, Barrus et al., as modified above, teaches an image generating device for generating an image of a component completed by arranging a plurality of components in a plurality of divided areas in a virtual three-dimensional space, the device comprising: storage means; selection means; arranging means; and an imaging unit capable of performing the method of claim 15 (Abstract; Figs. 1-2, 20-21, 24 and 26; column 3, lines 19-52; columns 6-7, lines 54-10; column 19, lines 13-62; columns 19-20, lines 63-47, i.e. a storage database connected to the computer through the network, wherein a virtual reality environment is divided up into locales that can be modified indicates a system having a computer containing a display, a CPU, memory and is connected to a network such that a server generates a final image containing the elements/components in the virtual three-dimensional locale requested by the browser).

Referring to claim 16, the rationale for claim 15 is incorporated herein, Barrus et al., as modified above, teaches a computer-readable recording medium including a computer program for causing a computer to serve as an image generating device for

generating an image of a component completed by arranging a plurality of components in a plurality of divided areas in a virtual three-dimensional space, the computer program causing the computer to execute the method of claim 15 (Figs. 11(element 1108) and 26; column 9, lines 33-40; column 11, lines 48-56; column 12, lines 41-56; column 13, lines 33-46; columns 13-14, lines 66-11; columns 14-15, lines 64-10; column 19, lines 13-27; column 20, lines 39-54; column 21, lines 40-41, i.e. it is inherent that a system having a server and multiple computers for performing the method of claim 15 and is connected to a network such that a server generates a final image containing the elements/components in the virtual three-dimensional locale requested by the browser program further includes a computer-readable medium for storing the programs required to perform the method as claimed).

Response to Arguments

Applicant's arguments with respect to claims 12, 15 and 16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta Prendergast whose telephone number is (571) 272-7647. The examiner can normally be reached on M-F 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RP 11/26/2007

KEE M. TUNG
SUPERVISORY PATENT EXAMINER